

Application No. To Be Assigned

1 --16. An electrosurgery apparatus as set forth in claim 2 characterised in that the electrode or electrodes
2 (32, 33, 62, 63) and the electrode carrier (31, 61a-c) are heatable to a temperature of more than 37 degrees.--

Sub B3
Cont
3 -17. An electrosurgery apparatus as set forth in any one of the preceding claims characterised in that the
4 electrode or electrodes (62, 63) and/or the electrode carrier (61a, 61b) have a cavity (64, 65) and that the
5 temperature control device includes a temperature-controllable fluid source (83, 85) which is in
communication with the electrode (62, 63) and/or the electrode carrier (61a, 61b) by way of a quantitative
flow control device (84, 87). --

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-18. An electrosurgery apparatus as set forth in one of claims 14 through 16 characterised in that the
electrode (32, 33, 62, 63) and/or the electrode carrier (31, 61a-c) has a thermoelectric heating and cooling
device. --

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-19. An electrosurgery apparatus as set forth in claim 14, characterised in that there is provided an
effective temperature profile control device (87) which is connected by way of a control signal connection
to the temperature control device (83).--

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-20. An electrosurgery apparatus as set forth in claim 19 characterised in that the effective temperature
profile control device (87) for controlling the alternating current power is connected by way of a control
input to the alternating current source (81).--

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-21. An electrosurgery apparatus as set forth in claim 19 or claim 20 characterised in that the effective
temperature profile control device (87) includes an interactively programmable calculation unit (87.2) for
determining simulated, time-dependent effective temperature profiles on the basis of parameters of the tissue
and the electrode (82) and assumed parameters of the alternating current source (81) and the temperature
control device (83), and for varying the assumed parameters to ascertain an optimized, time-dependent
effective temperature profile.--

Application No. To Be Assigned

Sub B3
cont 3.
1 -22 An electrosurgery apparatus as set forth in claims 19, characterised by at least one low-inertia
2 temperature sensor (86) which is connected to an input of the effective temperature profile control device
3 (87) and which can be arranged in the body adjacent to the electrode (32, 33, 62, 63) or the electrode carrier
4 (31, 61a-c).--

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cont 4
1 -23. An electrosurgery apparatus as set forth in claim 22 characterised in that the temperature sensor (86)
2 is connected to an input of the calculation unit (87.2) and that the calculation unit (87.2) has means for
3 verification or correction of a simulated, time-dependent effective temperature profile on the basis of the
4 measurement signal of the temperature sensor. --

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